

Wet roads: It can rain in winter, and wet roads can be just as treacherous as icy roads. Rain acts as a lubricant, making road surfaces very slippery, especially as the first drops fall. So, slow down and put your headlights on.

As rainfall increases, tires have a difficult job of maintaining contact with the road. If you're going too fast, the tires may start to ride on top of the water — just like a water ski. This is called "aquaplaning or hydroplaning". And when a vehicle aquaplanes, you can lose control. Therefore, reduce your speed and be sure you have good tires with lots of tread.

Wet snow: It can build up slush in the wheel wells of your car, and actually restrict your ability to steer or manoeuvre. It's a good idea to clear out the wheel wells periodically, perhaps when you stop for gas.

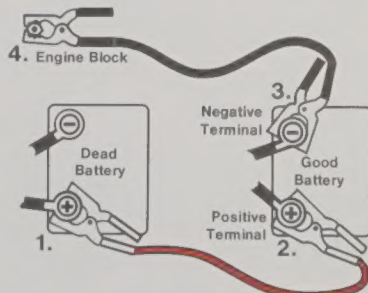


EXTRA TIPS

- The sun is so low during January and February that it can be glaring. **Put your headlights on and be seen.**
- If you park your vehicle outside overnight, fasten a sheet of plastic or an old blanket on the outside of the windshield. This will protect the windshield from ice and snow, and save you some work before starting off.
- Driving through deep slush or puddles can get water in the brakes and reduce the braking action. Pump your brakes gently while moving to create heat which will eventually dry them out and let them return to normal.
- If you're taking a long or remote trip, make sure someone knows where you're going, your route and when you expect to get there. Always allow more time than normal.
- The proper way to start most cars in winter is to depress the accelerator just once, release and turn the key. Pumping the accelerator pedal "floods" the engine. If it's flooded, put the gas pedal to the floor and hold it there while turning the ignition.
- Be on the alert for snow plows and other road maintenance vehicles. They are equipped with a flashing blue light. This warns you of a wide and slowly-moving vehicle. On freeways, they may travel in tandem. Do not try to pass between them. There isn't enough room to do so safely and the ridge of wet snow can throw your vehicle out of control.
- Be careful using booster cables. Make sure the dead battery and good battery are the same voltage. Check the fluid for freezing. *Don't have the cars touching. Turn off both ignitions and all accessories.* Put gears in park or neutral and put the parking brake on. Then attach the clamps in the following order and remove them in the exact opposite order:

- attach red clamp to positive terminal of dead battery;
- attach other red clamp to positive terminal of good battery;
- attach black clamp to negative terminal of good battery;
- attach other black clamp to the engine block or a metal portion of the car with the dead battery;
- once the cables are properly connected, start the vehicle giving the boost first.

(CAUTION: Connecting the booster cables the wrong way can cause batteries to explode.)



- When weather conditions worsen, the police may decide to close certain highways, or portions of highways when road conditions are dangerous. *Always obey the emergency road closing signs and follow the directions of any police officer.*



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PREPARE FOR WINTER DRIVING

Winter weather puts extra demands on you, as a driver, and your car's performance.

As a driver, you can wear light clothing when driving in winter, but *always* carry a warm coat, gloves, boots and head covering in the vehicle in case of a breakdown.

For your vehicle, there are a number of things you can do to make cold-weather driving easier and safer, including:

1. get a thorough engine tune-up;



2. change the oil, using a lightweight, multigrade oil (heavy oil thickens in cold weather, making it harder for the engine to turn over);
3. check all water hoses and the exhaust system for leaks;

4. check the battery, making sure terminals are cleaned and greased to guard against corrosion;
5. regularly check the coolant level (it should be renewed every two years);
6. check to ensure you have ample windshield washer antifreeze and fuel line antifreeze;
7. have the brakes checked to ensure equalized braking on all wheels (this eliminates pull to one side especially when braking on a slippery surface); and,
8. always keep your fuel tank at least half full (this adds weight to the rear of the vehicle, and you'll need it to run the car for the heater should you become stranded).

Such precautions take care of the vehicle. Now, how about you or your passengers should you become stranded in your vehicle?

Most motorists, primarily city motorists believe they will never be stranded in a snow storm. Yet, every year, there are reports of motorists freezing to death in their vehicles within the city limits.

For example, it could be late at night and you could be stranded only a mile or two from a gas station or house. But trying to walk a mile or two in a snow storm is dangerous.

So, why not take that added precaution and put together a basic winter motoring survival kit, including:

1. scraper and brush;
2. shovel;
3. booster cables;
4. sand, salt or kitty litter (may help to free your vehicle if it's stuck);
5. traction pads or pieces of old carpeting (also for added traction);
6. first aid kit;

7. flashlight;
8. flares;
9. extra fuses, radiator hoses, and fan belts (it may be a long way to the next garage);
10. blankets or sleeping bags (for warmth);
11. extra winter clothing (again for warmth);
12. tow line or chain;
13. a supply of non-perishable foods such as chocolate bars, instant soup, tea or coffee (should you become stranded for a long period of time);
14. a tin can and matches or a lighter and candles to melt snow (never use unmelted snow as a substitute for drinking water; plus, a single candle can warm an empty full-sized sealed car by 4.5°C (10°F));
15. an emergency supply of prescription drugs if necessary.



Alcohol is not a good survival item. It causes the blood vessels close to the skin to expand and *speeds up* the loss of body heat. It also makes you drowsy, and you could freeze to death while sleeping.

IF YOU GET STUCK

Get out of your car carefully if you're in an area where you could be hit by another vehicle. If you're in a fairly safe area, start digging the snow away from all wheels. . . *but work slowly, don't over-exert yourself.* Position the traction pads or pieces of old carpeting under the drive wheels. . . even scraps of cardboard will help.



Now is the time to spread that bag of salt, sand or kitty litter. This will give the tire treads something to bite into. Use *gentle* accelerator pressure. If you are stuck in a rut, rock the car back and forth to give you enough momentum to get out.

But remember, if your car is an automatic, *brake* when shifting from reverse to drive, or vice versa, to avoid damaging the transmission. Or, if you don't want to use the brakes, shift from drive to neutral or reverse to neutral, depending on the direction you want to go.

IF YOU'RE STRANDED

You've tried everything possible to free your car and nothing works. . . *now you're stranded*. Try to make the vehicle as visible as possible to other motorists, snowmobilers or emergency patrols. Use the *emergency flashers*, set up *flares*, place a *warning light* on top of the car, or even *tie a scarf or a piece of cloth* to the aerial or door handle.



If traffic is heavy, *stay in the car*. Besides being safer, it also provides the best protection from the weather. Run the engine for 10 minutes every hour. You'll be warm enough while keeping the battery charged and conserving gas that may have to last several hours.

But, *always keep a window partially open* for ventilation. If you have a station wagon or hatchback, *don't open the rear window*, it tends to draw the exhaust fumes into your car. Check to make sure the exhaust pipe is not blocked with snow. Remember, deadly carbon monoxide from the exhaust is odourless.

Now is the time you'll be thankful for the extra clothing, blankets and emergency supplies. And one last thing. . . *don't allow all the occupants of the car to sleep at any one time*. One should stay awake to check occupants for frostbite and keep an eye out for help.

DRIVING AND WINTER

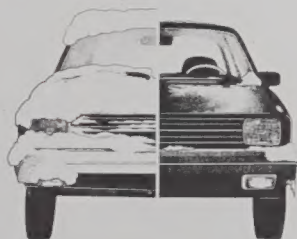
TIRES

Snow tires provide the best traction for winter driving. Install them at least on the drive wheels, and *before* the first snow. And remember, it's illegal to have radial ply tires on the front and bias ply or bias-belted ply tires on the rear. Also, *studded tires are illegal* in Ontario.

If you live in a snow belt area, try installing four snow tires, because front wheels do all the steering and 60 per cent or more of the braking.

STARTING OFF

Begin by cleaning ice and snow off all windows, exterior lights, hood and roof. Pay particular attention to the fresh air ducts on the hood by the windshield. . . it will eliminate some of the fogging on the inside of your windshield.



Also, if you close your vehicle's heater/defroster controls at night, this helps prevent snow and moisture from entering the system. Snow can also blow through the front grill and cause ignition problems if not cleared away. When you get into the car, make sure you clean ice and snow off your shoes or boots so they won't slip off the pedals.

Once you get into a cold car, it doesn't take long before the windows are covered with con-

densation. So, open the window a crack and this will help clear the humidity. When the windows are clear, *start off slowly*. And providing you're in a safe area, test your braking and steering. . . *get a feel for the road surface*.



WINTER DRIVING CALLS FOR EXTRA CARE

Your car should be driven smoothly in all weather conditions. . . but driving in bad weather calls for extra-smooth, precise steering, gentle acceleration and gradual application of the brakes.

If you're having trouble getting started, don't gun the motor and spin the wheels. This just turns snow to ice. Traction can be gained by spreading salt, sand or kitty litter or placing traction pads or pieces of old carpeting under the drive wheels. The, use *gentle* gas pedal pressure.

LEAVE PLENTY OF SPACE

The most common winter accident is sliding into another vehicle because there wasn't enough room to stop. It takes much longer to stop on a slippery road. . . and you may not spot a hazard as quickly when visibility is poor.

So, *remember the two-second rule*. . . *and extend it*. The two-second rule is a simple way to check that you're following at a safe distance behind another vehicle. Just select an object along the road ahead, such as a hydro pole or sign. When the car in front passes the object, start counting "one-thousand-one. . . one-thousand-two. . .". If you reach the object before the end of the count, you're too close.

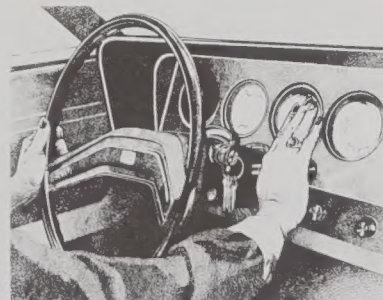
IN WINTER, DOUBLE THE TWO-SECOND RULE!

STOPPING ON SLIPPERY ROADS

The first rule to remember when stopping on a slippery road, is, *don't try to stop and turn at the same time*. . . do one or the other.

Shifting to neutral/de-clutching: On a slippery surface, if you shift to neutral or de-clutch before braking, you take the driving forces off the drive wheels. Therefore, the drive wheels aren't working against the brakes. De-clutching is easy, but shifting to neutral with an automatic requires practice.

In an automatic, with a column-mounted shift, push the gear lever out, away from you and up. . . not towards you as you would normally shift. If the automatic shift lever is mounted on the console, push the lever forward, but don't push the button. By using this method of shifting to neutral, you won't accidentally engage reverse or park. . . the lever will only go as far as neutral.



Threshold braking: Once you have de-clutched or shifted to neutral, apply the brakes *gradually and gently*. . . pressing the brakes just short of a lock-up. Should any of the wheels lock, ease up on the brake pedal and re-apply. **DON'T PUMP**, just ease up slightly.



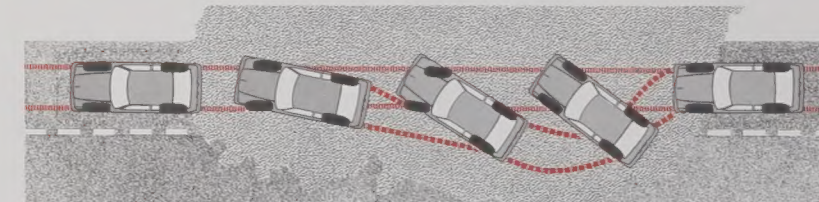
Don't pump the brakes: *Pumping the brakes is not an effective way to stop*. Each time you remove your foot from the brake pedal, you're not stopping at all. Therefore, your braking distance is increased. You're not using the car's full braking potential.

And, some people pump the brakes a little too vigorously which could throw the car into a skid. Also, as you pump, you'll notice the pedal getting harder to depress. This indicates you are losing the power assistance and, consequently, braking power.

SKIDDING? DON'T PANIC!

A skid is loss of tire traction. . . the tires stop rotating and slide. And skids can involve the front, rear or all four wheels. *Most skids are caused by the driver's failure to react in good time, and by driving too fast for road conditions*.

To avoid skids altogether, look ahead. . . read the road conditions. . . give yourself enough time to react. . . reduce your speed smoothly and gently and avoid sudden movements of the steering wheel.



Rear-wheel skids: These usually occur in rear-wheel drive vehicles and are caused by improper gas pedal pressure or severe braking. In front-wheel drive vehicles, rear-wheel skids occur most often when braking. In a rear-wheel skid, the back of the vehicle can swing in either direction. The rule is to shift to neutral or de-clutch, and if you're braking, release the brakes, then steer in the direction of the skid. If the rear of the vehicle swings right, steer right. . . if it swings left, steer left.

Front-wheel skids: These usually occur in front-wheel drive vehicles. In this type of vehicle, most occur because of accelerating into a corner. If you find yourself in a front-wheel skid, *don't increase the power*. . . shift to neutral or de-clutch and steer smoothly and gently.

Fishtail skids: In a rear-wheel skid, if you fail to shift to neutral or de-clutch quickly, or over-correct the steering, your vehicle may fishtail. This action is comparable to a clock pendulum. To correct, shift to neutral or de-clutch and steer in the direction you want to go.

When skids go too far: In many cases, when a skid has gone too far, the vehicle will start to *spin like a top*. Although the sensation may be alarming, *hit the brake pedal extremely hard, locking all four wheels*. (It's easier to obtain a

four-wheel lock if you shift to neutral or de-clutch first.) If all four wheels are locked, the vehicle may keep spinning, but it will spin along a straight path in the direction the vehicle is travelling.

Practice is the best way to learn how to handle skids or any emergency driving technique. If possible, *practice under controlled conditions with a qualified instructor*.

SOME WINTER DRIVING CONDITIONS

Ice: As weather conditions change, so do road conditions. Be especially wary of shaded areas, bridges and overpasses. These sections freeze first and stay frozen long after the sun has come up.

Black ice: The road ahead may appear to be black and shiny asphalt, but it could be covered with a thin layer of ice. Generally, in winter, asphalt has a grey-white colour. So, if you do see "black ice" ahead, slow down, be ready to de-clutch or shift to neutral and, if you must brake. . . *do so smoothly and gently*.

Hard-packed snow: This can be as slippery as ice. It can also be rutted. . . full of hard tracks and little gullies. However, the colder it is, the better traction your car has on hard-packed snow. But as the snow warms up, it becomes more slippery. *Slow down, drive relaxed* and avoid abrupt steering, braking or acceleration that could cause a skid.

Blowing snow: **Always use your low beam headlights, not high beams in blowing snow.** High beam lights just reflect off the snow flakes and you lose vision in a "white-out" effect. However, "white-outs" can occur anytime in blowing snow. They occur when powdery snow is blown by high winds in below-freezing weather. . . sometimes for miles. If you've never experienced one, it's like being trapped in a white cocoon. So, if you find your visibility cut to zero, *slow down to a crawl and get off the road* into a safe area as soon as possible.

Deep snow: This gives you fairly good traction if your car is equipped with snow tires. However, the added drag can actually cause the engine to labour and overheat. So, keep an eye on the temperature gauge.